Activity Site Reconnaissance	Analyzed by/Date	Reviewed by/Date

PRINCIPAL	POTENTIAL		RECOMMENDED		
STEPS		HAZARDS		CONTROLS	
Contact utility companies	OE		Employee	s of utility service provider must be escorted	
Inspect site	Weather-re	elated hazards: Wind, rain, sun, heat,	by OE-qua	alified personnel	
Walk the site	cold		Wear cloth	hing appropriate to weather conditions	
Check equipment	Walking su	urfaces: Unimproved land, range	Use sunso	creen	
Load equipment	land, sand	, rocks, gravel, mud	Watch car	refully where you walk	
Lead equipment	Dangerous	s plants and animals: Poison oak,	Do not ste	p in shadows until you are sure of your	
	stinging ne	ettle, thistle, stinging insects, black	footing		
	widow, bro	low, brown spider.		Shadows may hide small animals, pits, holes, or other	
	Lifting haza	g hazards		areas of unstable footing	
				Carefully choose your footholds when crossing rocky,	
				uneven, or loose ground surfaces	
				Optimize ergonomics of instrument handling	
EQUIPMENT		INSPECTION		TRAINING	
TO BE USED	REQUIREMENTS			REQUIREMENTS	
Level D PPE (see Section 1.12.1) Stay within sight of buddy			HAZWOPER Qualified		
·				Site-specific training	
				Review and comply with SSHP	
				Graduate of U.S. Navy EOD School	
				(Escort Personnel only)	

Activity Vegetation Removal	Analyzed by/Date	Reviewed by/Date
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PRINCIPAL		POTENTIAL		RECOMMENDED
STEPS				
Use hand tools to clear vegetation Use power tools to clear vegetation	HAZARDS OE Weather-related hazards: Wind, rain, sun, heat, cold Walking surfaces: Unimproved land, range land, sand, rocks, gravel, mud Dangerous plants and animals: Poison oak, thistle, stinging insects, black widow, brown spider		CONTROLS Must be escorted by OE-qualified personnel Level D PPE, leather palm working gloves, and hearing protection Apply OE safety concepts and basic considerations Proper footing Use flagging system to mark OE Use eye protection Trained personnel only	
	Power Too	ls		
	Heavy mad	chinery		
EQUIPMENT TO BE USED				TRAINING REQUIREMENTS
Hand tools, power equipment PPE (see Section 1.12.1) Heavy machinery (see Section		Daily equipment inspection		Experience with the hand/power tools HAZWOPER Qualified Site-specific training Review and comply with SSHP Graduate of U.S. Navy EOD School (Escort Personnel only)

Activity Fence Removal and Installation	Analyzed by/Date	Reviewed by/Date
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PRINCIPAL	POTENTIAL			RECOMMENDED	
STEPS		HAZARDS		CONTROLS	
Remove fencing and fence posts	OE Weather-related hazards: Wind, rain, sun, heat,			s of fencing subcontractor must be escorted alified personnel	
Install fence posts and	cold	villa, raili, sali, neat,		ning appropriate to weather conditions	
fencing	Walking su	urfaces: Unimproved land, range	Use sunso		
Inspect fence installation	land, sand	, rocks, gravel, mud	Watch car	efully where you walk	
locations	Dangerous	s plants and animals: Poison oak,	Do not ste	p in shadows until you are sure of your	
	stinging in:	stinging insects, black widow spider, brown		footing	
	spider	er		Shadows may hide small animals, pits, holes, or other	
	Lifting haz	ifting hazards		reas of unstable footing	
				Carefully choose your footholds when crossing rocky,	
			uneven, o	r loose ground surfaces	
			Optimize e	ergonomics of tool handling	
EQUIPMENT		INSPECTION		TRAINING	
TO BE USED REQUIREMENTS		REQUIREMENTS			
White Pulse Induction Metal Detector, Daily check of metal detector using ki		nown Site-specific training			
fence posts, fencing, post hole digger, source		source		Review and comply with SSHP	
slide hammer, Level D PPE (see Stay within sight of buddy			Graduate of U.S. Navy EOD School		
Section 1.12.1)				(Escort Personnel only)	

Former Benicia Arsenal, Benicia, California

Activity Location and Marking of Search Grids Analyzed by/Date Reviewed by/Date

PRINCIPAL		POTENTIAL		RECOMMENDED	
STEPS		HAZARDS		CONTROLS	
Walk the site	OE		Must be esc	orted by EOD-trained personnel	
Check equipment	Weather-re	elated hazards: Wind, rain, sun, heat, cold	Wear clothi	ng appropriate to weather conditions	
Load equipment	Walking su	ırfaces: Unimproved land, range land,	Use sunscre	een	
Set transit	sand, rocks	s, gravel, mud	Watch care	fully where you walk	
Set control points	Dangerous	plants and animals: Poison oak, stinging	Do not step	in shadows until you are sure of your	
Locate grid corners	insects, bla	ack widow spider, brown spider	footing		
Set stakes and monuments	Lifting haza	ards	Shadows m	ay hide small animals, pits, holes, or other	
Enter data into GIS	Repetitive motion injury		areas of uns	stable footing	
			Carefully ch	oose your footholds when crossing rocky,	
			uneven, or loose ground surfaces		
			Optimize er	Optimize ergonomics of work station within limits of	
			available ed	uipment	
			Take 5-min	ute break each hour	
EQUIPMENT		INSPECTION		TRAINING	
TO BE USED		REQUIREMENTS		REQUIREMENTS	
GPS, stakes, hammer		Daily check on source with approved meta	I detector ^(a) .	HAZWOPER Qualified	
approved metal detector ^(a)		Stay within sight of buddy. Ensure that electrical		Site-specific training	
Hand-held radios		equipment is properly grounded.		Review and comply with SSHP	
Transit, pole, rod, chain, PC				Knowledgeable, familiar, and trained with	
Level D PPE (see Section 1.12.1)				equipment and ergonomic	
				recommendations	
				Graduate of U.S. Navy EOD School	
				(Escort Personnel only)	

Note: (a) As demonstrated at geophysical equipment test plot.

Activity OE Surface Clearance Analyzed by/Date Reviewed by/Date

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PRINCIPAL	POTENTIAL			RECOMMENDED	
STEPS		HAZARDS		CONTROLS	
Visually inspect ground	OE		Must be O	E-qualified	
Inspect ground with	Weather-re	elated Hazards: Wind, rain, sun, heat,	Wear cloth	ning appropriate to weather conditions	
Schonstedt	cold		Use sunso	creen	
magnetometer	Walking su	urfaces: Unimproved land, sand,	Watch car	efully where you walk	
Remove all OE scrap and	rocks, grav	vel, mud	Do not ste	p in shadows until you are sure of your	
metallic debris	Dangerous	s plants and animals: Poison oak,	footing		
Flag all suspected OE	stinging insects, black widow spider, brown		Shadows	adows may hide small animals, pits, holes, or other	
	spider		areas of u	reas of unstable footing	
	Lifting hazards		Carefully of	fully choose your footholds when crossing rocky,	
		_		r loose ground surfaces	
		C		ergonomics of instrument handling	
EQUIPMENT		INSPECTION		TRAINING	
TO BE USED	TO BE USED REQUIREMENTS		REQUIREMENTS		
Approved metal detector, pin flags, Daily check of metal detector using ki		nown	Graduate of U.S. Navy EOD School		
debris bags, Level D PPE (see source			Site-specific training		
Section 1.12.1) Stay within sweep lanes and/or sight of		of buddy	HAZWOPER Qualified		
				Review and comply with SSHP	

Activity Geophysical Investigation Analyzed by/Date _____ Reviewed by/Date _____

PRINCIPAL	POTENTIAL			RECOMMENDED	
STEPS		HAZARDS		CONTROLS	
Conduct magnetometer or	OE		Level D PPE		
electromagnetic sweep of	Weather-re	elated hazards: Wind, rain, sun, heat,	Apply OE safety	y concepts and basic considerations	
OE grid	cold		Proper footing		
	Walking surfaces: Unimproved land, range land,		Know heat and	cold stress warning signs and proper action	
	sand, rocks	s, gravel, mud	Have first-aid ki	its and fire extinguishers	
	Dangerous	plants and animals: Poison oak,	Use eye protect	tion	
	stinging insects, black widow spider, brown		Shadows may h	Shadows may hide small animals, pits, holes, or other	
	spider		areas of unstable footing		
	Lifting hazards		Carefully chose	refully chose your footholds when crossing rocky,	
			uneven, or loos	e ground surfaces	
			Optimize ergon	omics of instrument handling	
EQUIPMENT		INSPECTION		TRAINING	
TO BE USED		REQUIREMENTS		REQUIREMENTS	
Tow-tractors or ATV (see Section		Daily check of geophysical equipment using known		HAZWOPER Qualified	
1.11.5)		source		Site-specific training	
Magnetometers or EM61 ^(a) , (see Section				Review and comply with SSHP	
1.11.7)					
Level D PPE (see Section 1.1	12.1)				

Note: (a) As demonstrated at geophysical equipment test plot.

Activity OE Subsurface Clearance Analyzed by/Date _____ Reviewed by/Date _____

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PRINCIPAL	POTENTIAL		RECOMMENDED	
STEPS		HAZARDS		CONTROLS
Excavate ferrous metal	OE		Level D PPE	
contacts	Noise		Apply OE safety co	ncepts and basic considerations
Possible use of heavy	Fragmentati	on	Use sunscreen	
equipment	Accidental c	letonation	Watch carefully wh	ere you walk
	Weather-rel	ated hazards: Wind, rain, sun, heat,	Do not step in shad	dows until you are sure of your footing
	cold		shadows may hide	small animals, pits, holes, or other
	Walking sur	faces: Unimproved land, sand, rocks,	areas of unstable for	ooting
	gravel, mud		Carefully choose your footholds when crossing rocky,	
	Dangerous plants and animals: Poison oak,		uneven or loose ground surfaces	
	stinging insects, black widow spiders, brown		Have first-aid kits and fire extinguishers	
	spider		Use flagging system to mark OE	
	Bending and	d stooping	Use eye protection while excavating	
	Lifting hazai	rds	Optimize ergonomi	cs of instrument handling
EQUIPMENT		INSPECTION		TRAINING
TO BE USED		REQUIREMENTS		REQUIREMENTS
Approved metal detector (see Section		Daily serviceability of shovels		Graduate U.S. Navy EOD School
1.11.7)		Daily instrument checks		HAZWOPER Qualified
Level D PPE (see Section 1.12.1)		Daily instrument checks of backhoe		Site-specific training
Backhoe (see Section 1.11.3)		Heavy Equipment Certification (Attachment XX)		Review and comply with SSHP
				(except heavy equipment operators)

Activity Backfill Analyzed by/Date _____ Reviewed by/Date _____

PRINCIPAL	POTENTIAL		RECOMMENDED	
STEPS	HAZARDS		CONTROLS	
Return excavated soil to opening Compact with feet and shovel	Weather-related hazards: Wind, rain, sun, heat, cold Walking surfaces: Unimproved land, range land, sand, rocks, gravel, mud Dangerous plants and animals: Cactus, livestock Bending and stooping Lifting hazards		Level D PPE Wear clothing appropriate to weather conditions Use sunscreen Watch carefully where you walk Do not step in shadows until you are sure of your footing Shadows may hide small animals, pits, holes, or other areas of unstable footing Carefully choose your footholds when crossing rocky, uneven, or loose ground surfaces Optimize ergonomics of instrument handling Use eye protection while backfilling	
EQUIPMENT	INSPECTION		3	TRAINING
TO BE USED	REQUIREMENTS			REQUIREMENTS
Level D PPE (see Section 1.1 Shovels Backhoe (see Section 1.11.3)	Daily instrument checks of backhoe		ment)	HAZWOPER Qualified Site-specific training Review and comply with SSHP Train people in use of tools

Activity OE Scrap and Metallic Debris Disposal	Analyzed by/Date	Reviewed by/Date
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PRINCIPAL	POTENTIAL		RECOMMENDED		
STEPS	HAZARDS		CONTROLS		
Picking up scrap	OE		Inspect vehicle for suitability to travel over terrain		
Loading onto truck	Weather-related hazards: Wind, rain, sun, heat,		Use proper lifting techniques		
Transport	cold		Use only qualified drivers		
	Walking su	-		roperly secure load for transport	
	rocks, muc	1		·	
	Dangerous	s plants and animals: Poison oak,			
	stinging ins	sects, black widow spider, brown			
	spider				
	Lifting hea	vy objects			
	Vehicle ac	cident			
	Cut hazard	1			
	Bending a	nd stooping			
EQUIPMENT		INSPECTION		TRAINING	
TO BE USED		REQUIREMENTS		REQUIREMENTS	
Vehicle with rate load capacity of ½ ton		IAW Department of Transportation requirements per 49		IAW with Department of	
or greater, suitable for off-road travel		CFR		Transportation, state, and local laws	
Level D PPE (see Section 1.12.1)				HAZWOPER Qualified	
				Site-specific training	
				Review and comply with SSHP	

Activity OE Identification and Disposal Analyzed by/Date _____ Reviewed by/Date _____

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PRINCIPAL	POTENTIAL		RECOMMENDED		
STEPS	HAZARDS		CONTROLS		
Explosives handling	Explosives		Level D PPE	Level D PPE	
Setting changes	OE		Apply OE safety concepts and basic considerations		
Disposal by detonation	Noise		Proper footing and footwear		
	Fragmentat	ion	Remove obstacles	on disposal site	
	Accidental of	detonation	Use security to den	y access to site	
	Lifting haza	rds	Know heat and cold	stress warning signs and proper	
	Weather-re	lated hazards: Wind, rain, sun, heat,	action		
	cold		Use TM60 series fo	r specific OE	
	Walking su	rfaces: Unimproved land, sand, rocks,	Have first-aid kits a	nd fire extinguishers	
	gravel, muc	I	Educate personnel to stay beyond MSD from dispo		
	Dangerous plants and animals: Thistle, sting		Conduct operations and safety briefing prior to beginning		
	nettle, poiso	on oak, stinging insects, black widow	operation		
	spider, brov	vn spider	Comply with OE Dis	isposal SOP (Appendix G - OE RDD)	
EQUIPMENT		INSPECTION		TRAINING	
TO BE USED		REQUIREMENTS		REQUIREMENTS	
Demolition equipment		Ensure demolition equipment and hand tools are		Graduate U.S. Navy EOD School	
Firing system		serviceable - to be inspected daily prior to use		HAZWOPER Qualified	
Hand tools				Site-specific training	
Level D PPE (see Section 1.12.1)				Review and comply with SSHP	
Blast chamber (see Section 4.11 of OE				Training people in use of tools	
RDD).					

Activity TNT Soil Homogenization	Analyzed by/Date	Reviewed by/Date
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PRINCIPAL	POTENTIAL		RECOMMENDED		
STEPS		HAZARDS	CONTROLS		
	OE		Wear clothing appropriate to weather conditions		
Use tractor and plow to turn	Weather-re	elated hazards: Wind, rain, sun, heat, cold	Use sunscreen		
soil	Walking su	rfaces: Unimproved land, range land,	Watch carefully where you walk		
	sand, rocks	s, gravel, mud	Wear Level D PPE		
Use tractor and disc to turn	Dangerous	plants and animals: Cactus, livestock	Have first-aid and fire extinguishers available		
and breakup soil	Lifting haza	ards	Optimize ergonomics of work station within limits of		
	Repetitive	motion injury	available equipment		
			Take 5-min	e break each hour	
EQUIPMENT		INSPECTION		TRAINING	
TO BE USED		REQUIREMENTS		REQUIREMENTS	
Tractor (rubber tires)		Daily Equipment Inspection		HAZWOPER initial 40-hour training	
Hand-held radios				Site-specific training	
				Review and comply with SSHP	
Level D PPE				Knowledgeable, familiar, and trained with	
				equipment and ergonomic	
				recommendations	

Activity Soil Excavation/Stockpiling Analyzed by/Date ______ Reviewed by/Date _____

PRINCIPAL	POTENTIAL		RECOMMENDED		
STEPS	HAZARDS		CONTROLS		
	OE		Must be escorted by UXO Technician		
Remove non-hazardous	Weather-related hazards: Wind, rain, sun, heat, cold		Wear clothing appropriate to weather conditions		
construction debris from	Walking surfaces: Unimproved land, range land,		Use sunscreen		
stockpiles	sand, rocks	s, gravel, mud	Observe he	avy equipment operation safety	
	Vehicle Ac	cident	Watch care	fully where you walk	
Level remaining soils and	Repetitive motion injury		Optimize er	Optimize ergonomics of work station within limits of	
OE point clear in lifts			available ed	uipment	
		Take 5-minu		ute break each hour	
EQUIPMENT		INSPECTION		TRAINING	
TO BE USED		REQUIREMENTS		REQUIREMENTS	
MTAD geophysical equipment		Daily Equipment Inspection		HAZWOPER initial 40-hour training	
Heavy equipment (front-end loader)				Site-specific training	
Hand-held radios				Review and comply with SSHP	
First-aid kit				Knowledgeable, familiar, and trained with	
Fire extinguisher				equipment and ergonomic	
Level D PPE (see Section 8.1)				recommendations	

Activity TNT Soil Homogenization Analyzed by/Date ______ Reviewed by/Date _____

PRINCIPAL STEPS	POTENTIAL HAZARDS		RECOMMENDED CONTROLS	
Water truck for dust control Use tractor and plow to turn soil Use tractor and disc to turn and break up soil Use PM ₁₀ sampling equipment for dust sampling	OE Weather-related hazards: Wind, rain, sun, heat, cold Walking surfaces: Unimproved land, range land, sand, rocks, gravel, mud Dangerous plants and animals: Cactus, livestock Lifting hazards Repetitive motion injury		Wear clothing appropriate to weather conditions Use sunscreen Watch carefully where you walk Wear Level D PPE Optimize ergonomics of work station within limits of available equipment Take 5-minute break each hour	
EQUIPMENT TO BE USED		INSPECTION REQUIREMENTS		TRAINING REQUIREMENTS
Water truck Excavating equipment with smooth- lipped buckets PM ₁₀ sampling equipment Level D PPE Note: All equipment will have sealed bearings and shielded electrical junction boxes		Daily Equipment Inspection		HAZWOPER initial 40-hour training Site-specific training Review and comply with SSHP Knowledgeable, familiar, and trained with equipment and ergonomic recommendations